

**THE FIRST RECORDED MALES OF *SOPHIRA LIMBATA*  
ENDERLEIN AND *S. LIMBIPENNIS* (VAN DER WULP)  
(DIPTERA: TEPHRITIDAE: ACANTHONEVRINI)**

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**Abstract**

Males of *Sophira limbata* Enderlein and *S. limbipennis* (van der Wulp) are newly recorded from Sarawak, Malaysia and Java, Indonesia respectively. Their distinctive features and relationship with *S. appendiculata* Enderlein are noted and the specific status of *S. borneensis* Hering is confirmed.

**Introduction**

The Southeast Asian fruit fly genus *Sophira* Walker was reviewed by Hardy (1958, 1980) and Hancock (2012), the latter noting that males of *S. limbata* Enderlein, 1911 and *S. limbipennis* (van der Wulp, 1899) were unknown, leading to some uncertainty over their specific status. As a consequence, the specific status of *S. borneensis* Hering, 1952 was also uncertain, it being raised from a subspecies of *S. limbata* by Hancock (2012) largely on the basis of sympatry.

Recent examination of unsorted material in the Natural History Museum, London (BMNH) revealed males attributable to both *S. limbata* and *S. limbipennis*, thereby enabling a better understanding of their identities and relationships.

***Sophira limbata* Enderlein**

*Sophira limbata* Enderlein, 1911: 435. (♀). Type locality Soekaranda, Sumatra.

*Material examined.* MALAYSIA: 1 ♀, West Malaysia, Pahang, 5.viii.1925; 1 ♂, [Sarawak, Kuching], Matang Road, 2.iv.1911, ex FMS Museum (both in BMNH).

*Comments.* The male resembles the female (see Hardy 1958) in having a narrow dark costal band that seldom crosses vein  $R_{2+3}$  except at its apex. It differs in the more diffuse dark band along vein  $Cu_1$  basally, the costal band not continuing around apex of cell  $r_{4+5}$  to unite with the dark band along vein M and in the hyaline posterior lobe to cell  $cu_1$  at the apex of vein  $A_1+Cu_2$ . This lobe is narrower and more projecting than in both *S. appendiculata* Enderlein, 1911 (see Hardy 1958) and the following species, to which *S. limbata* is evidently related.

***Sophira limbipennis* (van der Wulp)**

*Iteoptera limbipennis* van der Wulp, 1899: 213. (♀). Type locality Sukabumi, Java.

*Sophira insueta* Hering, 1952: 274. (♀). Type locality Mt Pangrango, Java. Syn. Hancock 2012: 12.

*Material examined.* INDONESIA: 1 ♂, Java, Djampang Tengah, Wangun (Mataram), iii.1938, coll. E. le Moul't (in BMNH).

*Comments.* The male resembles the female (see Hering 1952) in having a broad dark costal band that reaches or just crosses vein  $R_{2+3}$  along its entire length and is not united with the dark band along vein M. It differs in the more diffuse dark band along vein  $Cu_1$  basally and in the hyaline posterior lobe to cell  $cu_1$  at the apex of vein  $A_1+Cu_2$ . This lobe is evenly rounded as in *S. appendiculata* and not as projecting and tooth-like as in *S. limbata*, providing further evidence for the specific separation of the two taxa.

### Discussion

The discovery of males attributable to *S. limbata* and *S. limbipennis* confirms the specific separation of *S. borneensis*, where males lack the posterior lobe to cell  $cu_1$  and have the genae protruding and apically 'feathered' (see Hardy 1988); this character is absent in males of the other two species.

Three species are now known where males have a posterior lobe, or 'appendix', to cell  $cu_1$ . Males of *S. appendiculata* differ significantly from those of *S. limbata* and *S. limbipennis* in wing pattern. This and the differing shape of the posterior lobe suggest that three distinct species are involved, two of which have at least partially sympatric distributions. *Sophira limbipennis* is known only from western Java; *S. appendiculata* is recorded from Sumatra (type locality) and Sarawak (Hardy 1988, who recorded a female); *S. limbata* is recorded from Sumatra (type locality), West Malaysia, Sarawak and Brunei (Chua 2000 and above specimens).

### Acknowledgement

I thank Daniel Whitmore (BMNH) for access to specimens in his care.

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